

## CLAIMS

What is claimed is:

- 1 1. A medium access control (MAC) layer for a node of a wireless local area network,  
2 comprising a hardware layer and a software layer, the hardware layer being configured to  
3 perform time-critical tasks and the software layer being configured to perform non-time  
4 critical tasks.
- 1 2. The MAC layer of claim 1 wherein the software layer comprises multiple modules  
2 including one or more of a host communication agent, a bridging layer, a network  
3 management support module, a SBM-to-TAME conversion module, and a rate estimation  
4 module.
- 1 3. The MAC layer of claim 1 wherein the software layer acts as the source of and the  
2 destination of MAC Service Data Units.
- 1 4. The MAC layer of claim 1 configured for use in an embedded application.
- 1 5. The MAC layer of claim 1 configured for use in a stand-alone application.
- 1 6. The MAC layer of claim 1 configured for use in a host-based application.
- 1 7. The MAC layer of claim 6 wherein all communication layers above the MAC layer are  
2 configured to run on a host.
- 1 8. The MAC layer of claim 1 wherein the software layer is configured as a hierarchical  
2 structure in which functional unit blocks for associated elements of the hardware layer  
3 communicate with an application layer through respective device drivers and managers.
- 1 9. The MAC layer of claim 8 wherein the device drivers and managers communicate through  
2 a device manager layer.